Applicant: Velsher

Serial No.: 10/709,135

Page 2

Amendments to the Claims:

Please cancel claim 14 and amend claims 1, 16 and 25 as follows:

1 (currently amended) A multi-source optical module comprising:

a) an optical circuit that is positioned on a base, the optical circuit having a first and a

second optical input;

b) a first and a second optical source that are positioned on the base relative to the optical

circuit; and

c) a first lens being positioned between an output of the first optical source and the first

optical input of the optical circuit, a second lens being positioned between an output of

the second optical source and the second input of the optical circuit, at least one of the

first and the second lenses being positionable with a positioning member that is shaped to

facilitate moving the lens with a positioning instrument so that the output of a respective

one of the first and second optical sources and a respective one of the first and the second

optical inputs of the optical circuit are aligned.

2 (original) The optical module of claim 1 wherein the optical circuit comprises an optical

integrated circuit.

3 (original) The optical module of claim 1 wherein the optical circuit comprises a discrete-

type optical circuit.

4 (original) The optical module of claim 1 wherein the optical circuit is attached to the base

with an adhesive material.

Applicant: Velsher

Serial No.: 10/709,135

Page 3

5 (original) The optical module of claim 1 wherein the optical circuit is soldered to the base.

6 (original) The optical module of claim 1 wherein at least one of the first and the second

optical sources comprises a semiconductor laser.

7 (original) The optical module of claim 1 wherein at least one of the first and the second

optical sources is soldered onto the base.

3 (original) The optical module of claim 1 wherein the second optical source is positioned

relative to the first optical source on the base so as to increase thermal impedance between

the first and the second optical sources.

9 (original) The optical module of claim 1 wherein the first and the second optical sources are

positioned so that the first optical source is thermally isolated from the second optical source.

10 (original) The optical module of claim 1 wherein at least one of the first and the second

optical sources comprises an array of optical sources.

11 (original) The optical module of claim 1 wherein at least one of the first and the second

lenses comprises a silicon lens.

12 (original) The optical module of claim 1 wherein at least one of the first and the second

lenses comprises a plastic lens.

13 (original) The optical module of claim 1 wherein at least one of the first and the second

lenses are positionable in at least three dimensions.

14 (canceled)

Applicant: Velsher

Serial No.: 10/709,135

Page 4

15 (original) The optical module of claim 1 wherein the optical module comprises at least one

of an optical multiplexer and an optical demultiplexer.

16 (currently amended) A method of manufacturing a multi-source optical module, the method

comprising:

a) attaching an optical circuit to a base of a multi-source optical module;

b) attaching a first and a second optical source to the base;

c) positioning a first lens between an output of the first optical source and a first optical

input of the optical circuit and positioning a second lens between an output of the second

optical source and a second optical input of the optical circuit, wherein the first and the

second lenses are positioned with a positioning member that is shaped to facilitate

moving the lens with a positioning instrument; and

d) manipulating at least one of the first and the second lenses to obtain a desired coupling

between a respective output of the first and second optical source and a respective one of

the first and second optical inputs of the optical circuit.

17 (original) The method of claim 16 wherein the manipulating the at least one of the first and

the second lenses comprises manipulating at least one of the first and the second lenses with

a micromanipulator stage.

18 (original) The method of claim 16 wherein the manipulating is performed actively.

19 (original) The method of claim 16 further comprising fixing at least one of the first and the

second lenses in place after the manipulation.

Applicant: Velsher

Serial No.: 10/709,135

Page 5

20 (original) The method of claim 19 wherein the fixing the at least one of the first and the

second lenses in place comprises attaching the at least one of the first and the second lenses

to the base.

21 (original) The method of claim 16 wherein the attaching the first optical source to the base

and the attaching the second optical source to the base further comprise positioning the first

optical source relative to the second optical source at a position that increases a thermal

impedance path between the first and the second optical source.

22 (original) The method of claim 16 further comprising hermetically packaging the multi-

source optical module.

23 (original) The method of claim 16 wherein the manipulating the at least one of the first and

the second lenses to obtain a desired coupling comprises manipulating the at least one of the

first and the second lenses in at least three dimensions.

24 (original) The method of claim 16 wherein the manipulating the at least one of the first and

the second lenses to obtain a desired coupling comprises manipulating the at least one of the

first and the second lenses to increase optical transmission through a respective one of the

first and the second optical inputs of the optical circuit.

25 (currently amended) A multi-source optical module comprising:

a) means for attaching an optical circuit to a base of a multi-source optical module;

b) means for attaching a first and a second optical source to the base;

Applicant: Velsher Serial No.: 10/709,135

Page 6

c) means for positioning a first lens between an output of the first optical source and a first

optical input of the optical circuit and for positioning a second lens between an output of

the second optical source and a second optical input of the optical circuit, wherein the

means for positioning includes a positioning member that is shaped to facilitate moving

the lens with a positioning instrument;

d) means for manipulating at least one of the first and the second lenses to obtain a desired

coupling between a respective output of the first and second optical source and a

respective one of the first and second optical inputs of the optical circuit; and

e) means for fixing the at least one of the first and the second lenses in place.